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(71)Applicant : ULVAC JAPAN LTD

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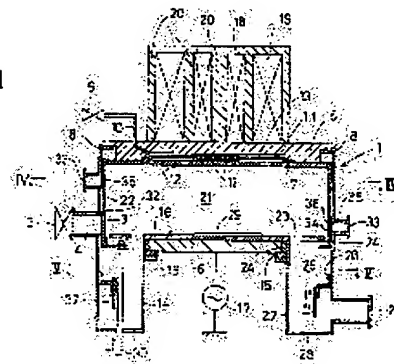
(72)Inventor : MATSUDA AKIO  
TANABE MASABUMI  
HAYASHI TOSHIO

## (54) PLASMA TREATING DEVICE

### (57)Abstract:

**PURPOSE:** To uniformize a plasma distribution and to execute the plasma treatment uniformly at a high speed by enclosing the side between a counter electrode and a substrate electrode with a deposition preventive plate, ejecting gas from the ejection ports formed in the counter electrode and providing an annular discharge passage around the substrate electrode.

**CONSTITUTION:** The etching gas is ejected from the ejection ports of the counter electrode 5 to a space 21. An electric current is passed to an inner electromagnet 18 and an outer electromagnet 19 to form axisymmetrical magnetic fields around the central axis of the substrate electrode 6. The high density plasma of the etching gas is formed in the space 21 when a high-frequency electric power is impressed from an RF power source 17 to the substrate electrode 6. The products generated by the etching and the etching gas which does not contribute to the etching are discharged through the annular discharge passage 23 around the substrate electrode 16 and are discharged through the clearance 28 with a baffle 27 of an annular chamber 25 from a discharge port 2. The space 21 is enclosed axisymmetrically by the deposition preventive plate 22 and the stable discharge is generated therein.



## LEGAL STATUS

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